

Title (en)

SEMICONDUCTOR LASER, OPTICAL EMISSION COMPONENT, OPTICAL LINE TERMINAL AND OPTICAL NETWORK UNIT

Title (de)

HALBLEITERLASER, OPTISCHE EMISSIONSKOMPONENTE, OPTISCHER LEITUNGSANSCHLUSS UND OPTISCHE NETZWERKEINHEIT

Title (fr)

LASER SEMI-CONDUCTEUR, COMPOSANT D'ÉMISSION OPTIQUE, TERMINAL DE LIGNE OPTIQUE ET UNITÉ DE RÉSEAU OPTIQUE

Publication

**EP 3869640 A1 20210825 (EN)**

Application

**EP 19907942 A 20190104**

Priority

CN 2019070483 W 20190104

Abstract (en)

Embodiments of this application provide a semiconductor laser, an optical transmitter component, an optical line terminal, and an optical network unit. The semiconductor laser includes a substrate, and a lower waveguide layer, a lower confining layer, a central layer, an upper confining layer, a grating layer, an upper waveguide layer and an electrode layer that are sequentially formed on the substrate. The upper confining layer, the central layer and the lower confining layer in a filtering region form a core layer of the filtering region. The grating layer in the filtering region includes a slanted grating. In this application, a modulation chirp and dispersion of a transmitted optical pulse can be reduced.

IPC 8 full level

**H01S 5/12** (2021.01)

CPC (source: EP KR US)

**H01S 5/026** (2013.01 - EP); **H01S 5/06226** (2013.01 - EP); **H01S 5/12** (2013.01 - EP KR US); **H01S 5/1206** (2013.01 - KR); **H01S 5/1228** (2013.01 - EP KR); **H01S 5/1237** (2013.01 - US); **H01S 5/124** (2013.01 - EP); **H01S 5/125** (2013.01 - KR); **H01S 5/34** (2013.01 - US); **H04B 10/272** (2013.01 - EP); **H04J 14/0246** (2013.01 - US); **H01S 5/0287** (2013.01 - EP); **H01S 5/06256** (2013.01 - EP); **H01S 5/06258** (2013.01 - EP); **H01S 5/1039** (2013.01 - EP); **H01S 2301/163** (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3869640 A1 20210825**; **EP 3869640 A4 20211229**; **EP 3869640 B1 20240320**; CN 112740492 A 20210430; CN 112740492 B 20230404; JP 2022516019 A 20220224; JP 7206393 B2 20230117; KR 102495786 B1 20230206; KR 20210087085 A 20210709; US 2021296859 A1 20210923; WO 2020140286 A1 20200709

DOCDB simple family (application)

**EP 19907942 A 20190104**; CN 2019070483 W 20190104; CN 201980061913 A 20190104; JP 2021536188 A 20190104; KR 20217017795 A 20190104; US 202117333289 A 20210528